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October 7, 2003

TO: U.S. Patent and Trademark Office
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CONFIRMATION
PHONE NUMBER:

FROM: John E. Miller, Esq.
DIRECT DIAL PHONE NUMBER: 216-622-8679

OFFICIAL

CLIENT NO.: 27200/04005

CLIENT NAME: Magic American

NUMBER OF PAGES (including this page): 14

MESSAGE: U.S. Patent and Trademark Office Filing

Re: Serial No. 09/812,605
Title: IMPROVED LATEX PAINT REMOVER

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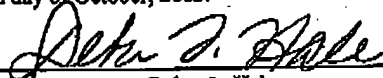
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Debra L. Hale**PATENT****IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Divisional Application of: Richard E. Pearl)

Serial No.: 09/812,605)

Art Unit: 1751)

Filed: March 20, 2001)

Examiner: Gregory E. Webb)

For: **IMPROVED LATEX PAINT
REMOVER**)

Attorney Docket No. 27200/04005)

Division of SN 09/603,059)

Filed June 26, 2000)

Customer No. 24024)

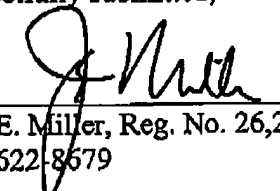
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SUPPLEMENT TO AMENDMENT

Dear Sir:

Supplemental to the Amendment filed on October 3, 2003, applicant provides for the Examiner's convenience updated MSDS's for n-methylpyrrolidone and γ -butyrolactone. As can be seen from these documents, both of these solvents are recognized as being eye irritants.

Respectfully submitted,


John E. Miller, Reg. No. 26,206
(216)622-8679



SIGMA-ALDRICH

Material Safety Data Sheet

Date Printed: 10/06/2003
Date Updated: 08/06/2002
Version 1.80

Section 1 - Product and Company Information

Product Name	1-METHYL-2-PYRROLIDINONE, 99+%, HPLC GRADE
Product Number	270458
Brand	Aldrich Chemical
Company	Sigma-Aldrich
Street Address	3050 Spruce Street
City, State, Zip, Country	SAINT LOUIS, MO 63103 US
Technical Phone:	314 771 6765
Fax	800 329 5082
Emergency Phone:	414 273 3850 Ext. 5898

Section 2 - Composition/Information on Ingredient

Substance Name	CAS #	SARA 313
1-METHYL-2-PYRROLIDINONE	872-50-4	Yes
Formula	C5H9NO	
Synonyms	N-Methylpyrrolidinone, N-Methyl-2-pyrrolidinone, 1-Methyl-2-pyrrolidinone, 1-Methyl-5-pyrrolidinone, N-Methylpyrrolidone, N-Methyl-alpha-pyrrolidone, N-Methyl-2-pyrrolidone, 1-Methyl-2-pyrrolidone, M-Pyrol, NMP	

Section 3 - Hazards Identification

Emergency Overview

Irritant,
Irritating to eyes and skin.
Combustible. Target organ(s): Bone marrow, Spleen, Calif. Prop. 65 reproductive hazard.

HMIS Rating

Health: 2* Flammability: 2 Reactivity: 1

NFPA Rating

Health: 2 Flammability: 2 Reactivity: 1

*additional chronic hazards present.

For additional information on toxicity, please refer to Section 11.

Section 4 - First Aid Measures

Oral Exposure

If swallowed, wash out mouth with water provided person is conscious. Call a physician.

Inhalation Exposure

If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

Dermal Exposure

In case of contact, immediately wash skin with soap and copious amounts of water.

Eye Exposure

In case of contact, immediately flush eyes with copious amounts of water for at least 15 minutes.

Section 5 - Fire Fighting Measures

Flammable Hazards: Yes

Flash Point: 187 °F 88 °C

Explosion Limits: Lower: 1.3 % Upper: 8.5 %

Autoignition Temp: 270 °C **Flammability:** Yes

Extinguishing Media
Suitable

Water spray, Carbon dioxide, dry chemical powder, or appropriate foam.

Firefighting

Protective Equipment

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Specific Hazard(s)

Emits toxic fumes under fire conditions. Combustible liquid.

Section 6 - Accidental Release Measures

Procedure(s) of Personal Precaution(s)

Wear respirator, chemical safety goggles, rubber boots, and heavy rubber gloves.

Methods for Cleaning Up

Absorb on sand or vermiculite and place in closed containers for disposal. Ventilate area and wash spill site after material pickup is complete.

Section 7 - Handling and Storage

Handling

User Exposure

Do not breathe vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

Storage

Suitable

Keep tightly closed. Keep away from heat and open flame. Store in a cool dry place.

Special Requirements

Moisture sensitive Store under inert gas.

Section 8 - Exposure Controls / PPE

Engineering Controls

Mechanical exhaust required. Safety shower and eye bath.

Personal Protective Equipment

Respiratory

Government approved respirator.

Hand

Compatible chemical-resistant gloves.

Eye

Chemical safety goggles.

General Hygiene Measures
 Wash thoroughly after handling.

Section 9 - Physical/Chemical Properties

Appearance	Physical State	Color
	Liquid	Colorless
Molecular Weight:	99.19 AMU	
<u>Property</u>	<u>Value</u>	<u>At Temperature or Pressure</u>
pH	7.7 - 8	
BP/BP Range	78 - 79 °C	12 mmHg
MP/MP Range	-24 °C	
Freezing Point	-23.6 °C	
Vapor Pressure	0.28 mmHg	20 °C
Vapor Density	3.4 g/l	
Saturated Vapor Conc.	N/A	
SG/Density	1.032 g/cm3	
Bulk Density	N/A	
Odor Threshold	N/A	
Volatiles	N/A	
VOC Content	N/A	
Water Content	< 0.01 %	
Solvent Content	N/A	
Evaporation Rate	N/A	
Viscosity	0.002 Pas	20 °C
Surface Tension	40.7 mN/m	
Partition Coefficient	Log Kow: -0.46	
Decomposition Temp.	N/A	
Flash Point °F	187 °F	Method: closed cup
Flash Point °C	88 °C	Method: closed cup
Explosion Limits	Lower: 1.3 % Upper: 9.5 %	
Flammability	N/A	
Autoignition Temp	270 °C	
Refractive Index	1.47	
Solubility	Other Solvents: MISCIBLE IN WATER, LOWER, ALCOHOLS AND KETONE, ETHYL ACETATE, CHLOROFORM, BENZENE.	
N/A = not available		

Section 10 - Stability and Reactivity

Stability
 Stable
 Stable.
Conditions to Avoid
 Protect from moisture.
Materials to Avoid
 Strong acids, Strong oxidizing agents.

Hazardous Decomposition Products
 Hazardous Decomposition Products
 Carbon monoxide, Carbon dioxide.

Hazardous Polymerization
 Hazardous Polymerization
 Will not occur.

Section 11 - Toxicological Information

Route of Exposure

Skin Contact

Causes skin irritation.

Skin Absorption

May be harmful if absorbed through the skin.

Eye Contact

Causes eye irritation.

Inhalation

May be harmful if inhaled. Material may be irritating to mucous membranes and upper respiratory tract.

Ingestion

May be harmful if swallowed.

Target Organ(s) or System(s)

Bone marrow, Thymus, Spleen, Lymphatic system.

Signs and Symptoms of Exposure

Prolonged exposure can cause: Stomach pains, vomiting, diarrhea. Rats exposed to 1-methyl-2-pyrrolidinone at a concentration of 1 mg/L as an aerosol for 10 days showed depletion of hematopoietic cells in the bone marrow and atrophy of the lymphoid tissues of the thymus, spleen, and lymph nodes.

RTECS Number: UYS790000

Toxicity Data

Oral - Rat: 3,814 mg/kg (LD50)

Intraperitoneal - Rat: 2472 MG/KG (LD50)

Subcutaneous - Rat: >2 GM/KG (LD50)

Intravenous - Rat: 80500 UG/KG (LD50)

Oral - Mouse: 5,130 mg/kg (LD50)

Intraperitoneal - Mouse: 3050 MG/KG (LD50)

Intravenous - Mouse: 54500 UG/KG (LD50)

Intravenous - Dog: 63300 UG/KG (LD50)

Skin - Rabbit: 8,000 mg/kg (LD50)

Irritation Data

Eyes - Rabbit: 100 mg

Remarks: Moderate irritation effect

Chronic Exposure Carcinogen

Mouse - Oral: 784 GM/KG 78W C

Result: Tumorigenic: Carcinogenic by RTECS criteria. Liver: Tumors.

Chronic Exposure - Teratogen

Species

Dose

Route of Application

Exposure Time

Rat

8700 MG/KG

Oral

(6-15D PREG)

Result: Effects on Embryo or Fetus: Fetal death.

Specific Developmental Abnormalities: Other developmental abnormalities.

Rat

118 PPM/6H

Inhalation

(MULTIGENERATION
S)

Result: Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus).

Chronic Exposure - Reproductive Hazard

Species	Dose	Route of Application	Exposure Time
Rat	150 PPM/SH	Inhalation	(7-20D PREG)
Rat	7500 MG/KG	Skin	(8-15D PREG)
Rat	7500 MG/KG	Skin	(8-15D PREG)
Rat	186 MG/KG	Intraperitoneal	(9D PREG)
Mouse	12825 MG/KG	Oral	(11-15D PREG)
Mouse	7825 MG/KG	Intraperitoneal	(11-15D PREG)

Result: Effects on Newborn: Growth statistics (e.g., reduced weight gain). Effects on Newborn: Delayed effects.
Result: Effects on Fertility: Post-Implantation mortality (e.g., dead and/or resorbed implants per total number of implants).
Effects on Fertility: Litter size (e.g., # fetuses per litter; measured before birth). Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus).
Result: Maternal Effects: Other effects. Specific Developmental Abnormalities: Musculoskeletal system.
Result: Effects on Fertility: Post-Implantation mortality (e.g., dead and/or resorbed implants per total number of implants).
Specific Developmental Abnormalities: Central nervous system. Specific Developmental Abnormalities: Musculoskeletal system.
Result: Effects on Fertility: Post-Implantation mortality (e.g., dead and/or resorbed implants per total number of implants).
Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus). Specific Developmental Abnormalities: Craniofacial (including nose and tongue).
Result: Effects on Fertility: Post-Implantation mortality (e.g., dead and/or resorbed implants per total number of implants).
Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus). Specific Developmental Abnormalities: Craniofacial (including nose and tongue).

Section 12 - Ecological Information

Acute Ecotoxicity Tests

Test Type

EC50 Daphnia

Species

Daphnia magna

Time:

24.0 h

Value:

> 1,000 mg/l

Test Type

IC50 Algae

Time:

72.0 h

Value:

> 500 mg/l

Test Type

LC50 Bacteria

Value:

> 8,000 mg/l

Test Type

LC50 Fish

Time:

96.0 h

Value:

4,000 mg/l

Elimination

Section 13 - Disposal Considerations

Appropriate Method of Disposal of Substance or Preparation

Contact a licensed professional waste disposal service to dispose of this material.

This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber.

Observe all federal, state, and local environmental regulations.

Section 14 - Transport Information

DOT

Proper Shipping Name: Combustible liquid, n.o.s.

UN#: 1993

Class: COMBUSTIBLE LIQUID

Packing Group: Packing Group III

Hazard Label: None.

Aldrich Chemical - 270458

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PIH: Not PIH

IATA

Non-Hazardous for Air Transport: Non-hazardous for air transport.

Section 15 - Regulatory Information

EU Directives Classification

Symbol of Danger: Xj

Indication of Danger

Irritant.

Risk Statements

R: 36/38

Irritating to eyes and skin.

Safety Statements

S: 41

In case of fire and/or explosion do not breathe fumes.

US Classification and Label Text

Indication of Danger

Irritant.

Risk Statements

Irritating to eyes and skin.

Safety Statements

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing. In case of fire and/or explosion do not breathe fumes.

US Statements

Combustible. Target organ(s): Bone marrow. Spleen. Calif. Prop. 65 reproductive hazard.

United States Regulatory Information

SARA Listed: Yes

Deminic: 1 %

Notes: This product is subject to SARA section 313 reporting requirements.

TSCA Inventory Item: Yes

United States - State Regulatory Information

California Prop - 65

This product is or contains chemical(s) known to the state of California to cause developmental toxicity.

Canada Regulatory Information

WHMIS Classification

This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.

OSL: Yes

NDSL: No

Section 16 - Other Information

Disclaimer

For R&D use only. Not for drug, household or other uses.

Warranty

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. Sigma-Aldrich Inc. shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. Copyright 2003 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.



SIGMA-ALDRICH

Material Safety Data Sheet

Date Printed: 10/06/2003
Date Updated: 04/16/2003
Version 1.40

Section 1 - Product and Company Information

Product Name	γ-Butyrolactone, 88+%	
Product Number	B103608	
Brand	Aldrich Chemical	
Company	Sigma-Aldrich	
Street Address	3050 Spruce Street	
City, State, Zip, Country	SAINT LOUIS, MO 63103 US	
Technical Phone:	314 771 5765	Emergency Phone:
Fax:	800 325 5052	414 273 3850 Ext. 5898

Section 2 - Composition/Information on Ingredient

Substance Name	CAS #	SARA 313
GAMMA-BUTYROLACTONE	86-48-0	No
Formula	C ₄ H ₆ O ₂	
Synonyms	gamma-6480, Agrisynth BLO, gamma-BL, 4-Butanolide, 1,2-Butanolide, 1,4-Butanolide, Butyric acid, 4-hydroxy-, gamma-lactone, Butyric acid lactone, Butyrolactone, gamma-Butyrolactone, 4-Butyrolactone, Butyrylactone, Butyryl lactone, C-1070, 4-Deoxytetronic acid, Dihydro-2(3H)-furanone, 4-Hydroxybutanoic acid lactone, 4-Hydroxybutanoic acid, gamma-lactone, gamma-Hydroxybutyric acid cyclic ester, 4-Hydroxybutyric acid lactone, 4-Hydroxybutyric acid, gamma-lactone, gamma-Hydroxybutyric acid lactone, gamma-Hydroxybutyrolactone, NCI-C55878, 2-Oxolanone, Tetrahydro-2-furanone	

Section 3 - Hazards Identification

Emergency Overview

Harmful.
Harmful if swallowed. Irritating to eyes.
Target organ(s): Central nervous system.

HMIS Rating

Health: 2* Flammability: 1 Reactivity: 1

NFPA Rating

Health: 2 Flammability: 1 Reactivity: 1

*additional chronic hazards present.

For additional information on toxicity, please refer to Section 11.

Section 4 - First Aid Measures

Oral Exposure

If swallowed, wash out mouth with water provided person is conscious. Call a physician.

Inhalation Exposure

If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.

Dermal Exposure

In case of contact, immediately wash skin with soap and copious amounts of water.

Eye Exposure

In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

Section 5 - Fire Fighting Measures

Explosion Hazards

Vapor/air mixtures are explosive at high temperatures.

Flash Point: 208.4 °F 98 °C

Explosion Limits: Lower: 1.4 % Upper: 18 %

Autoignition Temp: 455 °C

Extinguishing Media

Suitable

Water spray, Carbon dioxide, dry chemical powder, or appropriate foam.

Firefighting

Protective Equipment

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Specific Hazard(s)

Emits toxic fumes under fire conditions.

Section 6 - Accidental Release Measures

Procedure to be Followed in Case of Leak or Spill

Evacuate area.

Procedure(s) of Personal Precaution(s)

Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves.

Methods for Cleaning Up

Absorb on sand or vermiculite and place in closed containers for disposal. Ventilate area and wash spill site after material pickup is complete.

Section 7 - Handling and Storage

Handling

User Exposure

Do not breathe vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

Storage
Suitable
Keep tightly closed.

Special Requirements
Hygroscopic.

Section 8 - Exposure Controls / PPE

Engineering Controls
Safety shower and eye bath. Mechanical exhaust required.

Personal Protective Equipment
Respiratory
Government approved respirator.
Hand
Compatible chemical-resistant gloves.
Eye
Chemical safety goggles.

General Hygiene Measures
Wash thoroughly after handling.

Section 9 - Physical/Chemical Properties

Appearance
Physical State
Clear liquid
Color
Colorless

Molecular Weight: 88.09 AMU

Property	Value	At Temperature or Pressure
pH	N/A	
BP/SP Range	204 - 205 °C	760 mmHg
MP/MP Range	-45 °C	
Freezing Point	N/A	
Vapor Pressure	1.5 mmHg	20 °C
Vapor Density	3 g/l	
Saturated Vapor Conc.	N/A	
SG/Density	1.129 g/cm3	
Bulk Density	N/A	
Odor Threshold	N/A	
Volatiles%	N/A	
VOC Content	N/A	
Water Content	N/A	
Solvent Content	N/A	
Evaporation Rate	N/A	
Viscosity	N/A	
Partition Coefficient	Log K _{ow} : -0.57	
Decomposition Temp.	N/A	
Flash Point °F	208.4 °F	
Flash Point °C	88 °C	
Explosion Limits	Lower: 1.4 % Upper: 16 %	
Flammability	N/A	
Autoignition Temp	455 °C	
Refractive Index	1.437	

Method: closed cup
Method: closed cup

Solubility N/A

N/A = not available

Section 10 - Stability and Reactivity

Stability

Stable

Stable.

Conditions of Instability

Hygroscopic.

Materials to Avoid

Strong acids, Strong bases, Strong oxidizing agents, Strong reducing agents, Zinc, Plastics.

Hazardous Decomposition Products

Hazardous Decomposition Products

Carbon monoxide, Carbon dioxide.

Hazardous Polymerization

Hazardous Polymerization

Will not occur.

Section 11 - Toxicological Information

Route of Exposure

Skin Contact

May cause skin irritation.

Skin Absorption

May be harmful if absorbed through the skin.

Eye Contact

Causes eye irritation.

Inhalation

May be harmful if inhaled. Material may be irritating to mucous membranes and upper respiratory tract.

Ingestion

Harmful if swallowed.

Target Organ(s) or System(s)

Central nervous system.

Signs and Symptoms of Exposure

Inhalation may have an anesthetic effect on the central nervous system characterized by a loss of sensation. Preliminary excitement is the initial effect followed by relaxation, stupor, or sleep. Exposure can cause: Nausea, dizziness, and headache.

RTECS Number: LU3500000

Toxicity Data

Oral - Rat: 1,540 mg/kg (LD50)

Remarks: Behavioral: Altered sleep time (including change in righting reflex).

Behavioral: Somnolence (general depressed activity).

Lungs, Thorax, or Respiration: Respiratory depression.

Inhalation - Rat: > 5,100 mg/m3 (LC50)

Intraperitoneal - Rat: 1 GM/KG (LD50)

Remarks: Behavioral: General anesthetic.

Lungs, Thorax, or Respiration: Other changes.

Oral - Mouse: 1,460 mg/kg (LD50)

Remarks: Behavioral: General anesthetic.

Behavioral: Somnolence (general depressed activity).

Lungs, Thorax, or Respiration: Respiratory depression.

Intraperitoneal - Mouse: 1100 MG/KG (LD50)

Remarks: Behavioral: General anesthetic.

Aldrich Chemical - B103608

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Lungs, Thorax, or Respiration: Other changes.

Skin - Guinea pig: > 5,000 mg/kg (LD50)

Irritation Data

Skin - Rabbit: 0.5 ml

Remarks: Severe irritation effect

Chronic Exposure - Carcinogen

Result: This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.

Mouse - Oral: 191 GM/KG 2Y C

Result: Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Endocrine: Adrenal cortex tumors.

Mouse - Skin: 50 GM/KG 42W I

Result: Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Skin and Appendages: Other: Tumors. Tumorigenic: Tumors at site of application.

IARC Carcinogen List

Batho

Group 3

NTP Carcinogen List

Fating

Equivocal evidence.

No evidence.

Species

Mouse

Rat

Route

Gavage

Gavage

Chronic Exposure - Teratogen

Species

Rat

Dose

500 MG/KG

Route of Application

Oral

Exposure Time

(6-15D PREG)

Result: Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus).

Chronic Exposure - Mutagen

Species

Hamster

Dose

25 MG/L

Cell Type

kidney

Mutation test

Morphological transformation.

Hamster

2500 MG/L

ovary

Cytogenetic analysis

Hamster

4940 MG/L

ovary

Sister chromatid exchange

Chronic Exposure - Reproductive Hazard

Species

Rat

Dose

25 GM/KG

Route of Application

Oral

Exposure Time

(20D MALE)

Result: Paternal Effects: Testes, epididymis, sperm duct.

Section 12 - Ecological Information

Acute Ecotoxicity Tests

Test Type

LC50 Fish

Species

Leuciscus Idus

Time:

96.0 h

Value:

> 220 mg/l

Section 13 - Disposal Considerations

Appropriate Method of Disposal of Substance or Preparation

Contact a licensed professional waste disposal service to dispose of this material.

Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Observe all federal, state, and local environmental regulations.

Section 14 - Transport Information

DOT

Proper Shipping Name: None

Non-Hazardous for Transport: This substance is considered to be non-hazardous for transport.

IATA

Non-Hazardous for Air Transport: Non-hazardous for air transport.

Section 15 - Regulatory Information

EU Additional Classification

Symbol of Danger: Xn

Indication of Danger

Harmful.

Risk Statements R: 22 36

Harmful if swallowed, Irritating to eyes.

Safety Statements S: 26 36

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing.

US Classification and Label Text

Indication of Danger

Harmful.

Risk Statements

Harmful if swallowed, Irritating to eyes.

Safety Statements

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing.

US Statements

Target organ(s): Central nervous system.

United States Regulatory Information

SARA Listed: No

TSCA Inventory Item: Yes

Canada Regulatory Information

WHMIS Classification

This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.

DSL: Yes

NDSL: No

Section 16 - Other Information

Disclaimer

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Warranty

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